



Repeater: NØDX 145.190 MHz (Input 144.590 / Tone 192.8 Hz)



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## The Eastern Iowa DX Bulletin

Number 241, September 27, 2024

**Craig Fastenow, KØCF, Editor**

This bulletin is a compilation of **currently active** DX operations (or those that will become active within the current week) from recent issues of the three DX bulletins listed below and other sources. Credit for the source is given at the end of each article.

Articles are ordered by the entity's callsign prefix from the *ARRL DXCC Entities List*. Callsigns used are in **bold** with dates of operation highlighted in **red**. Clickable links are provided for QSL and other information wherever possible. Note that articles may be edited for grammar, language, style and accuracy and will remain in *The Bulletin* while active; articles that are announcements of ongoing operations, or that have no specified end date, will be removed after three weeks.

Also included is a [Propagation](#) section, updated daily; and a [Contest Calendar](#) of upcoming popular contests.

DX News items are courtesy of:

The ARRL DX Bulletin

The bulletin is available at <http://www.arrl.org>

425 DX News, A.R.I. DX Bulletin (425DXN)

Edited by Mauro Pregliasco, I1JQJ & Valeria Pregliasco, IK1ADH

425 DX News Home Page: <https://www.425dxn.org/>

425 DX News Google Group: <https://groups.google.com/g/425eng>

DX Newsletter (DXNL)

Edited by Andreas Salder, DK5ON

A weekly service of DARC Committee "DX", <http://www.darcdxhf.de>

Ohio-Penn DX Bulletin (OPDX)

Edited by Tedd Mirgliotta, KB8NW. Although OPDX is no longer published as a weekly bulletin, Tedd still sends DX news emails.

We will occasionally publish some of them.

Propagation data is from:

National Oceanic and Atmospheric Administration's

[Space Weather Prediction Center](#)

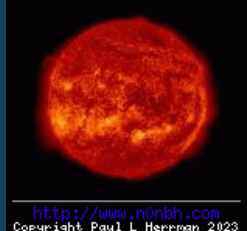
Dr. Tony Phillips' [SpaceWeather.com](http://SpaceWeather.com), used by permission

Contest data courtesy of the [WA7BNM Contest Calendar](#)



### Solar-Terrestrial Data

28 Sep 2024 1720 GMT  
 SFI: 186 SN: 151  
 A-Index: 6  
 K-Index: 2  
 X-Ray: C1.9  
 304A: 163.7 @ SEM  
 Ptn Flx: 1170  
 Elc Flx: 2800  
 Aurora: 2/n=1.99  
 Mag (Bz): -4.0  
 Solar Wind: 337.3  
 Geomag Field QUIET  
 Sig Noise Lvl S1-S2  
 Current Solar Image



<http://www.norbh.com>  
 Copyright Paul L. Herrman 2023

## DX News

**3D2/R, ROTUMA I.** Callsigns **3D22** (Three Delta Twenty-two) and **3D2V** will be used by the Rebel DX Group during their upcoming activity from Rotuma. SuperFox keys valid from September 20th to October 30th (<https://ncdxf.org/pages/sfkey.html>) have been issued for both callsigns. FT8 will be prioritized ("CW and SSB less important") and plans are to use both FT8 SuperFox and multistream MSHV on 20, 17, 15, 12 and 10m (same bands but different frequencies); on 160-30m only multistream MSHV will be used. The Rebels plan to set sail for Rotuma on **September 24th or 25th**, with the voyage taking around 48 hours. Bookmark <https://www.facebook.com/rebeldxgroup> for

updates. QSL via [ClubLog's OQRS](#).

-[425DXN # 1742 September 21, 2024] (0920-1101)

**3V, TUNISIA.** Ash, **3V9A**, reports that 3 years after obtaining his callsign he has now received permission to operate from his permanent home. Currently he is active only on 20m (SSB) but hopes to add more bands later. QSL via [LX1NO](#).

-[DXNL # 2425 September 25, 2024] (0927-1018)

**4L, GEORGIA.** Stephane, F4JZW, signs **4L/F4JZW** until **September 30th** on 80-6m with 10W and a wire. QSL via LoTW.

-[DXNL # 2421 August 28, 2024] (0830-1004)

**5H, TANZANIA.** Vlad, OK2WX will be active as **5H1WX** from Mafia Island (AF-054), Tanzania from **September 18th to October 6th**. He will operate CW, SSB and FT8 on 80-10 meters. Detailed QSL policy as well as other information on <https://www.mdxsupport.com/5h1wx/>. QSL via [I8KHC](#).

-[425DXN # 1733 July 20, 2024] (0913-1011)

**5R, MADAGASCAR.** Eric, F6ICX will be active again as **5R8IC** from Sainte-Marie Island (AF-090), Madagascar from **October until the end of the year**. He will operate mainly CW on 40-10 meters; during the last two weeks of December he will also be QRV on the QO-100 satellite. QSL via LoTW, [ClubLog's OQRS](#), or via [F6ICX](#).

-[425DXN # 1742 September 21, 2024] (0927-0103)

**5W, SAMOA.** Pete, ZL4TE will be active holiday style as **5WØTE** from Upolu, Samoa (OC-097) on **October 3rd-10th**. He plans to operate mainly CW on 40, 20 and 10 meters, and "to activate at least one of the POTA parks (more if I get time)". QSL via [ClubLog's OQRS](#), or direct to [ZL4TE](#).

-[425DXN # 1741 September 14, 2024] (0927-1011)

**9J, ZAMBIA.** Tom, DL2RMC is currently on a work assignment in Lusaka, Zambia, and has received the callsign **9J2FI**. "Since I am working on a time-consuming project, I won't be very active", he says. "Still, you can hear me in many contests". QSL via [DL1RTL](#).

-[425DXN # 1743 September 28, 2024] (0927-1018)

**A2, BOTSWANA,** Pista, HA5AO is QRV as **A25AO** from Chobe National Park until **October 14th**. Activity is on 80 to 6 meters using CW, SSB, and FT8. QSL to [HA5AO](#).

-[ARRL DX Bulletin # 36 September 26, 2024] (0927-1018)

**CT3, MADEIRA I.** Operators DJ8NK, DJ7JC, DL6TK, DM2RM, DK4QT, and DF7EE will be QRV as **CR3W** in the CQ Worldwide DX RTTY contest (**September 28th-29th**). QSL via LoTW.

-[ARRL DX Bulletin # 36 September 26, 2024] (0927-1004)

**DL, GERMANY.** Mathias DK7LV, Ric DL2VFR, Klaus DL2YBG and Fred DL4BBH will be active as **DM6ØIOTA** from Borkum Island (EU-047) on **September 27th-29th**. They will operate CW, SSB and FT8. All QSOs will be confirmed automatically via the bureau, as well as uploaded to ClubLog and LoTW.

-[425DXN # 1743 September 28, 2024] (0927-1004)

**DL, GERMANY.** Tom, DJ6OI will be active as **DJ6OI/p** from Wangerooge Island (EU-047) from **September 29th to October 4th**. QSL via [DJ6OI](#) and LoTW.

-[425DXN # 1743 September 28, 2024] (0927-1004)

**DXCC TOP TWENTY.** Here are the top 20 entities on ClubLog's "DXCC Most Wanted" list as of September 26, 2024:

1. P5	DPRK (North Korea)	11. ZS8	Prince Edward & Marion Islands
2. BS7H	Scarborough Reef	12. KH4	Midway Island
3. CEØX	San Felix Islands	13. VKØM	Macquarie Island
4. BV9P	Pratas Island	14. PYØS	Saint Peter And Paul Rocks
5. KH7K	Kure Island	15. KP5	Desecheo Island
6. KH3	Johnston Island	16. VPØS	South Sandwich Islands
7. 3Y/P	Peter 1 Island	17. KH5	Palmyra & Jarvis Islands
8. FT5/X	Kerguelen Island	18. ZL9	New Zealand Subantarctic Islands
9. YVØ	Aves Island	19. FK/C	Chesterfield Islands

10. 3Y/B Bouvet Island 20. VKØH Heard Island

For the complete list, see <https://clublog.org/mostwanted.php>

-[KØCF September 27, 2024] (0927-1018)

**E6, NIUE.** Fred, DH5FS is QRV as **E6FS** from Kaliki Lodge until September 30th. Activity is holiday style on various HF bands. QSL to [DH5FS](#).

-[ARRL DX Bulletin # 35 September 19, 2024] (0920-1004)

**EA, SPAIN.** Peter, DM3XRF, remains active until October 1st as **EA7/DM3XRF** on 40-10m (mostly digital modes, some CW and SSB) with 50W and a wire antenna. QSL only via [ClubLog's OQRS](#), LoTW, eQSL.

-[DXNL # 2425 September 25, 2024] (0927-1004)

**EA, SPAIN.** Special callsigns **EG3AMCUP** (from September 15th to October 14th) and **AO3AMCUP** (from October 15th to October 28th) will be used by members of URE's Unio de Radioaficionats de Barcelona i Baix Llobregat (EA3MM) during the 37th America's Cup. A certificate will be available, see <https://www.ure.es/diploma-cq-americas-cup-2024/> for information. QSL via [EA3MM](#), LoTW, eQSL and QRZ Logbook.

-[425DXN # 1742 September 21, 2024] (0920-1101)

**EA, SPAIN.** Special event station **EG2AMCUP** is QRV until October 29th during the 37th America's Cup being held in Barcelona. QSL via [EA3MM](#), [ClubLog's OQRS](#), LoTW.

-[ARRL DX Bulletin # 35 September 19, 2024] (0920-1101)

**EK, ARMENIA.** Artem, R2GEO, operates from Eriwan during his spare time as **EK2/R2GEO** on 20m (SSB, digital). QSL via [R2GEO](#), [EA5GL](#), LoTW.

-[DXNL # 2425 September 25, 2024] (0927-1018)

**F, FRANCE.** Dominique, F5PTI, and other ops will use the callsign **TM5RT** to draw attention to a military jubilee in France from September 29th until October 13th. For other information see qrz.com. QSL via [F5PTI](#).

-[DXNL # 2425 September 25, 2024] (0927-1018)

**F, FRANCE.** Radioclub F6KJS de Montceau les Mines (dpt 71, Saone et Loire) will remember the 80th anniversary of the liberation of Genelard with the special callsign **TM44LG** from September 15th through 29th. QSL via Bureau.

-[DXNL # 2423 September 11, 2024] (0913-1004)

**F, FRANCE.** To commemorate the 80th anniversary of the liberation of Winglees during WWII (September 2, 1944), the local radio club (F4KLR) will be active as **TM8ØLW** on August 31st, September 2nd and for another 13 days until November 9th. All SSB and CW QSOs will be confirmed automatically via the bureau and eQSL; FT8 QSOs will be confirmed via eQSL.

-[425DXN # 1738 August 24, 2024] (0830-1108)

**FO/M, MARQUESAS IS.** Paula, NX1P is QRV as **FO/NX1P** until October 1st. Activity is on the HF bands. QSL to [NX1P](#).

-[ARRL DX Bulletin # 33 September 5, 2024] (0906-1004)

**FR, REUNION I.** Michal, OM2DX is QRV as **TO2DX** until October 7th. This includes being an entry in the CQ Worldwide DX RTTY contest (September 28th-29th). QSL to [OM2DX](#).

-[ARRL DX Bulletin # 36 September 26, 2024] (0927-1011)

**GM, SCOTLAND.** Special event station **GB2ZL** (Scotland) will operate CW only on October 1st-28th to mark the 100th anniversary of the first amateur radio contact between Great Britain and New Zealand (October 18, 1924). See <https://www.qrz.com/db/GB2ZL> for more information. QSL via LoTW only.

-[425DXN # 1742 September 21, 2024] (0927-1101)

**HBØ, LIECHTENSTEIN.** Watch for Holger, **HBØ/HB9XQH** and Heinrich, **HBØ/HB9QHG** to be active from September 29th to October 3rd. QSL via [HB9XQH](#) and [HB9QHG](#) respectively.

-[DXNL # 2425 September 25, 2024] (0927-1004)

**HBØ, LIECHTENSTEIN.** Ops Roman and Leo will be active as **HBØ/DL3TU** and **HBØ/DL2COM** respectively from the **end of September to the beginning of October** on CW. QSL via [DL3TU](#) and [DL2COM](#) respectively.

-[DXNL # 2424 September 18, 2024] (0920-1011)

**HH, HAITI.** Special callsign **4V1SAVANNAH** will be used by the Radio Club d'Haiti to commemorate the 245th anniversary of the Battle of Savannah from **September 16th to October 20th**. In 1779, more than 500 volunteers from Saint-Domingue (the French colony which later became Haiti), fought alongside American colonial troops against the British Army during the siege of Savannah, an encounter of the American War of Independence. QSOs will be uploaded to ClubLog. QSL via [N2OO](#).  
-[425DXN # 1740 September 7, 2024] (0913-1018)

**I, ITALY.** Celebrating the 100th anniversary of the start of regular radio broadcasting in Italy (October 6, 1924), ARI local branches across Italy will be using special callsigns from **October 1st to December 29th**. The callsigns will be in the format **I#Rxyz** (e.g. I19RCAT for ARI Catania) and **IR#Rxyz** (e.g. IR1RVDB for ARI Valbormida). In addition, special event station **I1MRTV** will be active from the RAI Radio and Television Museum in Torino. Certificates and electronic QSLs will be available for download from the HamAward platform (direct link from each special callsign's qrz.com page).  
-[425DXN # 1743 September 28, 2024] (0927-1227)

**ISØ, SARDINIA.** Luca, IK5AEQ will be QRV as **ISØ/IK5AEQ** on **September 26th-28th** from POTA sites in the rare province of Oristano on mainland Sardinia (EU-024). Then from **September 29th to October 6th** he will be active as **IMØ/IK5AEQ** from San Pietro Island (EU-165). He will operate SSB, RTTY and FT modes on 40-2 meters. QSL via LoTW, [ClubLog's OQRS](#), or via [IK5AEQ](#).  
-[425DXN # 1742 September 21, 2024] (0920-1011)

**KH2, GUAM.** Hirata, JH3DJX will be QRV as **KH2/JH3DJX** from Tamuning from **September 29th to October 1st**. Activity will be on 40 to 10 meters using CW and FT8. QSL to [JH3DJX](#).  
-[ARRL DX Bulletin # 36 September 26, 2024] (0927-1004)

**KL7, ALASKA.** Drew, KL5DK, operates from Shemya Island (NA-037) in the Aleuts **until October** and plans to return in the following years from April to October. QSL via [KL5DK](#).  
-[DXNL # 2425 September 25, 2024] (0927-1004)

**OE, AUSTRIA.** Celebrating the 100th anniversary of the start of regular radio broadcasting in Austria (October 1, 1924), members of the Amateur Radio Club of the ORF (Austria's national public broadcaster) will be active as **OEØRF** (<https://www.oe1xrw.radio/>). QSL direct to [OE1XRW](#).  
-[425DXN # 1742 September 21, 2024] (0927-1004)

**OX, GREENLAND.** Bo, OZ1DJJ will be active again as **OX3LX** from Greenland from **September 27th to October 15th**. In his spare time, he will be QRV from Kangerlussuaq (GP47ta), Qaqortoq (GP60xr) and Christian IV Island (NA-151, GP80kb) around 4 October. QSL via [OZØJ](#), [ClubLog's OQRS](#) and LoTW.  
-[425DXN # 1743 September 28, 2024] (0927-1018)

**OZ, DENMARK.** Dieter, DF2SD is active holiday style as **OV9R** from Fano Island (EU-125) **until September 28th**. QSL via LoTW, eQSL and [ClubLog's OQRS](#) for paper cards.  
-[425DXN # 1742 September 21, 2024] (0920-1004)

**PA, NETHERLANDS.** Special callsign **PH8ØLIB** will be in use from various locations from **September 11th until November 10th** to commemorate the 80th anniversary of the liberation of southern Netherlands in the autumn of 1944. Activity will be on 80-10 meters SSB, CW and digital modes. See <https://www.qrz.com/db/PH80LIB> for detailed information. QSL via the bureau.  
-[425DXN # 1740 September 7, 2024] (0906-1108)

**SV, GREECE.** Dirk, ON5CT will be active as **SV8/ON5CT** from Samos Island (EU-049) **until October 6th**. He operates SSB, FT8 and RTTY on 80-6 meters. Paper QSLs will not be available, but QSOs will be uploaded to LoTW, eQSL and ClubLog.  
-[425DXN # 1741 September 14, 2024] (0913-1011)



**SV, GREECE.** Special callsign **SX8ØFF** will be used from various locations (including Crete as SV9/SX8ØFF) on **October 1st-31st**. The purpose of this activity is to honor the 80 fallen Greek firefighters and aerial firefighting crews who lost their lives in the line of duty. QSL via LoTW, eQSL and QRZ Logbook; paper cards will not be available.

-[425DXN # 1743 September 28, 2024] (0927-1101)

**SV, GREECE.** The Salamis Radio Amateurs Group will be active as **SX8AS** on **September 16th-30th** from Salamina Island (EU-075). QSL via LoTW and ClubLog.

-[425DXN # 1740 September 7, 2024] (0913-1004)

**T2, TUVALU.** Darren, VK4MAP, is QRV as **T2X/p** from Mulitefala Island **until September 30th**. Activity is on 80 to 10 meters using SSB. QSL to [VK4MAP](#).

-[ARRL DX Bulletin # 36 September 26, 2024] (0927-1004)

**T5, SOMALIA.** The **603T** team arrived in Hargeisa, Somaliland, on September 11th. On September 13th, they were "waiting for the customs clearance of the equipment, which as expected will take a few days. For this reason, no exact dates have been communicated regarding our on-air operation". If all goes well, they should be ready for the installation of the first of five stations in the coming days. Follow <https://www.facebook.com/Dxexplorernet> for updates. Full upload to LoTW 12 months after the DXpedition. QSL via [ClubLog's OQRS](#), or direct to [IV3DSH](#).

-[425DXN # 1741 September 14, 2024] (0913-1004)

**TI, COSTA RICA.** Richard, HB9FHV, is currently active as **TI8/HB9FHV** on 40-10m. He stays **until September 29th**. QSL via eQSL, qrz.com.

-[DXNL # 2425 September 25, 2024] (0927-1004)

**TU, COTE D'IVOIRE.** Mustafa, TA2IMG, a resident in Abidjan since 2016, has now received the callsign **TU5ML**. QRV on 160-6m (SSB, FT8) and via QO-100. QSL via [TA2YGT](#) or direct to [TU5ML](#).

-[DXNL # 2425 September 25, 2024] (0927-1018)

**TZ, MALI.** Jeff, **TZ4AM** is QRV **until September 30th**. Activity is on 80 to 6 meters using mostly CW and SSB. QSL via [KX4R](#).

-[ARRL DX Bulletin # 35 September 19, 2024] (0920-1004)

**V4, ST. KITTS & NEVIS.** Dale, W4AUV and Bob, K4RLC will be QRV as **V4/W4AUV** and **V4/K4RLC** respectively from St. Kitts (NA-104) from **October 1st to 12th**. Activity will be on 40 meters using CW, and 20 meters QRP CW, respectively, from three POTA sites. QSL via LoTW.

-[ARRL DX Bulletin # 36 September 26, 2024] (0927-1011)

**V4, ST. KITTS & NEVIS.** Once again John, W5JON will be active as **V47JA** from St. Kitts (NA-104) from **September 18th to October 1st**. He will operate SSB and FT8 on the 160-6 meters. QSL via LoTW, or direct to [W5JON](#).

-[425DXN # 1741 September 14, 2024] (0913-1004)

**V5, NAMIBIA.** A team headed by LA7THA signs **V55LA** from **September 30th to October 11th** on HF (CW, SSB). QSL via [MØOXO's OQRS](#).

-[DXNL # 2425 September 25, 2024] (0927-1011)

**V5, NAMIBIA.** Gunter, DK2WH is QRV as **V51WH** from Omaruru **until November 12th**. Activity is on 160 to 10 meters, including 60 meters, using SSB, FT8, and possibly CW. He will be active as **V55Y** in various contests. QSL to [DK2WH](#).

-[ARRL DX Bulletin # 35 September 19, 2024] (0920-1115)

**VE, CANADA.** Chris, VO1CH will be active again as **VO2VC** from Zone 2 in Labrador from **September 26th to October 3rd**, including an entry in the CQ WW RTTY DX Contest. QSL via LoTW, [ClubLog's OQRS](#), or via [VO1CH](#).

-[425DXN # 1741 September 14, 2024] (0920-1004)

**VK, AUSTRALIA.** From **September 14th to 29th**, **VI7POL** will be on air on the occasion of the 7th National Police Week. QSL via [VK5PAS](#), eQSL or LoTW.

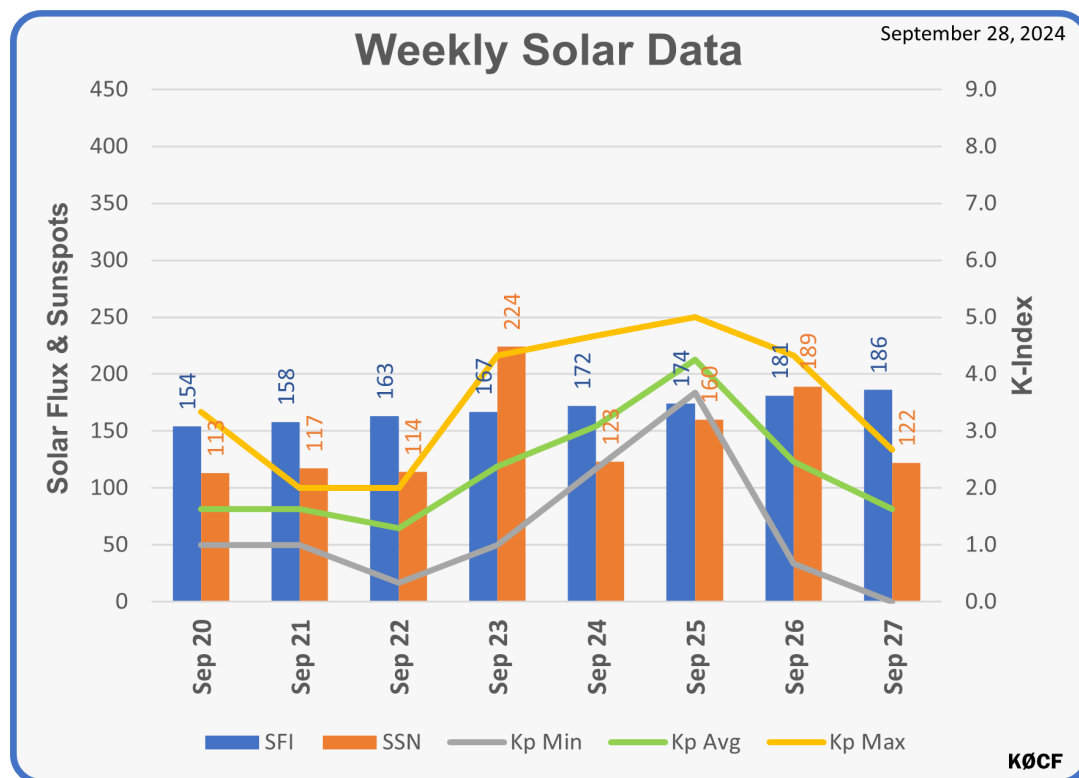
-[DXNL # 2423 September 11, 2024] (0913-1004)

**VU, INDIA.** Special event station **AT78I** is QRV until **November 13th** to celebrate 78 years of independence for India. Activity is on the HF bands using CW and SSB. QSL via [VU2JOS](https://www.vu2jos.com/).  
-[ARRL DX Bulletin # 31 August 22, 2024] (0823-1115)

**ZD9, TRISTAN DA CUNHA & GOUGH I.** Lance, W7GJ will be active as **ZD9GJ** from Tristan da Cunha (AF-029) approximately from **September 12th to October 1st**. This will be primarily a 6m EME DXpedition, using Q65-60A in the "Q65 Pileup" mode. See <https://www.bigskyspaces.com/w7gj/> for detailed information and instructions. When not "aimed up at the moon", he may operate SSB or FT8 on 6m TEP. QSL via LoTW, or direct to [W7GJ](https://www.w7gj.com/).  
-[425DXN # 1739 August 31, 2024] (0906-1004)

**ZL, NEW ZEALAND.** Special event station **ZM1ØØDX** will be QRV from **September 29th to December 26th** to celebrate the very first trans-world QSO between Z4AA and G2SZ. Activity will be on 160 to 6 meters using all modes. In addition, special event station **ZL4AA** will also be active for this event. QSL via operators' instructions.  
-[ARRL DX Bulletin # 36 September 26, 2024] (0927-1227)

## Propagation (Updated daily)



The Weekly Solar Data chart plots Solar Flux Index (SFI), Sunspot number (SSN) and Planetary K-Index (Kp) for the past 8 days. With 8 Planetary K-index readings each day, only the minimum, average and maximum K-index values are plotted. **Note:** You may click [here](#) or on the chart above to see the same data for the past month.

The Daily Solar Flux Index, Sunspot number, Planetary K-index, Solar Flux predictions and Solar Flare data used in this bulletin have been collected by KØCF from the U.S. Department of Commerce's NOAA Space Weather Prediction Center.

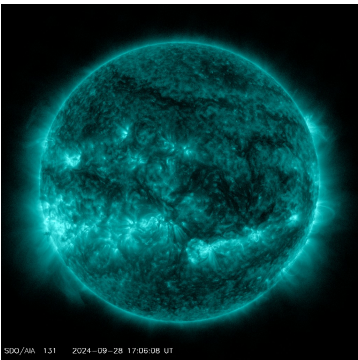
The propagation graphs above are the creations of KØCF and are unique in space weather reporting.

*Please Note: The graphs are high resolution .PNG files which you may view in greater detail using your browser's "zoom" feature. Alternatively, right click on the graph and select "Open Image in New Tab" to*

enlarge it, or "Save Image As..." to save it to your computer for further analysis.

NASA's current view of the Sun at a wave-length of 131 Angstroms. This wavelength shows incredible solar detail.

Click [here](#) or on the image to view as a full screen 48-hour video loop. It is fascinating!



**Propagation Summary**

For the 8 day period from Friday, September 20th through yesterday, September 27th.

The average solar flux was 172, up 6 points from the previous week, with a weekly high of 186 on Friday, September 27th, following a low of 154 on September 20th.

The average sunspot count was 150, up 41 from last week, peaking at 224 on Monday, September 23rd after a weekly low of 113 on September 20th.

The Planetary K-index weekly average was 3.5 with a maximum of 5.0 on Wednesday, September 25th, resulting in minor geomagnetic storm conditions. Yesterday's K-index maximum was 2.7 with generally quiet conditions.

Solar flare activity since September 21st has been quiet with only 4 major flares, the largest of which was an M 3.7 event on Sunday, September 22nd.

**Propagation Data**

Major solar flares, Saturday, September 21st through 1248 UTC, September 28th.

#	Date	UTC	Mag.
1	Sep 26	2312	M 1.4
2	Sep 25	2312	M 1.3
3	Sep 23	1456	M 1.3
4	Sep 22	2139	M 3.7

(NOAA's graph of recent flare activity: [GOES-X-Ray-Flux](#))

From the NOAA Space Weather Prediction Center, here are the probabilities of major solar flares and the predicted 10.7 cm Solar Flux for the next 3 days. NOAA updates this information daily.

Date	M-Flares	X-Flares	Solar Flux
Sep 28	55%	15%	185
Sep 29	55%	15%	185
Sep 30	55%	15%	185

Looking farther ahead, here is the NOAA Space Weather Prediction Center forecast of 10.7 cm radio flux and maximum Planetary K-index (Kp) for the next 12 days. This data is updated by NOAA every Monday (last updated on September 23, 2024).

Date	Flux	Kp
Sep 28	165	2

Date	Flux	Kp
Oct 2	180	2

Date	Flux	Kp
Oct 6	190	4

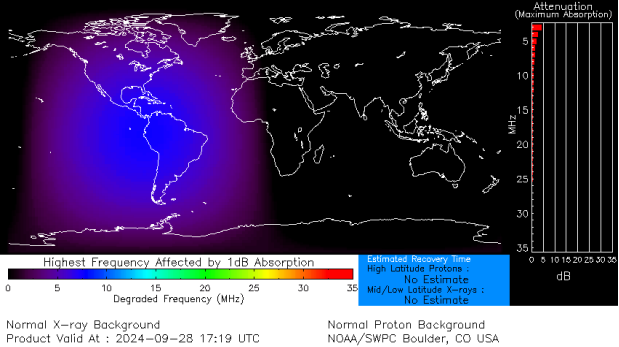
Sep 29	165	2
Sep 30	170	2
Oct 1	175	2

Oct 3	180	2
Oct 4	190	2
Oct 5	190	4

Oct 7	185	2
Oct 8	185	2
Oct 9	185	2

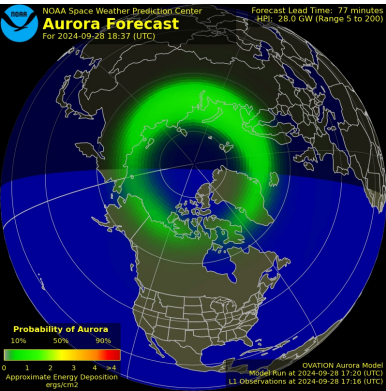
Global D Region Absorption

Conditions in the D-region of the ionosphere have a dramatic effect on HF communications. The D-Region Absorption map combines the effects of solar particles and photons. Yellow to red colors on the map depict increasing signal attenuation, where the bar chart at the right displays attenuation versus frequency. Click the thumbnail below for an animated map of D-Region Absorption:



The Aurora Borealis

The aurora is not only beautiful to see but can have a profound impact on HF and VHF radio propagation. For the HF operator, auroras can result in a complete shut-down of propagation. However, on VHF, auroras present interesting DX possibilities. Beam antennas are very desirable and should be pointed north, towards the aurora. Signals are reflected by “back-scatter” and will be distorted with a rough buzz. SSB is the best voice mode to use, but copy can be difficult. CW will have a rough buzzy sound but be perfectly copyable. Click the thumbnail below for an animated map of aurora versus time:



Highs for Cycle 25

Solar Flux: 336 on August 8, 2024.  
Sunspots: 382 on August 10, 2024.

A Propagation Mystery Solved

In QST magazine for October 2024, there is an excellent article by Frank Donovan, W3LPL, about radio propagation during the current Solar Cycle 25 surge. I highly recommend that you find and read this article. It is very informative.

The part of it that I found most interesting is the paragraph titled, “20-Meter Propagation”. He explains something that I have been wondering about: Why, when propagation should be great, 20 meters during the day has been terrible. Perhaps you have noticed that as well.

Frank makes it perfectly clear! During the summertime, for a period of several hours either side of local solar noon, the sun is very nearly overhead. This increases the ability of solar radiation to penetrate deeper into the ionosphere, beyond the normal F2 region which provides global DX propagation, and into the E- and even D-layers. These layers are at much lower altitudes and, if



strongly ionized, reflect radio signals shorter distances – typically around 1,200-1,300 miles maximum. Under these conditions, signals will be reflected rather than passing through the D- and E-layers, denying access to the F2 layer and global DX.

In fact, you can see the cause of this phenomenon in one of the links that I publish every day in this DX Bulletin: Global D Region Absorption. If you click on this thumbnail (above), a video of the D-Region absorption over the past 8 hours will be available. It is very intriguing to watch the full 8 hours of this video. When the central part of the absorption circle is deep blue, it likely will have minimal effect on 20 meters; however, if it becomes light blue to pale green, 20 meters can be seriously affected, resulting in conditions as described above.

-[Craig Fastenow, KØCF September 25, 2024]

### Quiet Conditions Continue

No CMEs are heading for Earth and no sunspots are actively flaring. As a result, space weather is expected to be quiet for the second day in a row. This forecast could quickly change if [a new sunspot](#) emerging from behind the sun's southeastern limb suddenly erupts.

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### Autumnal Cracks in Earth's Magnetic Field

How do you know it's autumn? Cracks are opening in Earth's magnetic field. Researchers call it the "[Russell-McPherron effect](#)." Solar wind flows through the gaps to fuel geomagnetic storms even without a CME impact. On Sept. 22nd, such a crack was responsible for this display 35,000 ft over Nunavut, Canada:



Pilot Matt Melnyk took the picture from the cockpit of an international flight. "Our route took us up to the 70th degree parallel of latitude--so far north that we were seeing auroras directly to our south!" he says.

"The bright half Moon lit up the landscape below the plane, which made for really interesting photos," Melnyk adds. Indeed, some of his shots look like they were taken from space:



All of this happened without a solar storm. The Russell-McPherron effect combined with ordinary solar wind to spark the display. More "autumnal cracks" are opening now, and they could set the stage for even brighter auroras if, as expected, a CME grazes Earth's magnetic field on Sept. 26th. (Copyright © [SpaceWeather.com](https://www.spaceweather.com/) September 26, 2024. Republished by permission.)

### Popular Propagation web sites

<https://prop.kc2g.com/> (Excellent Maximum Usable Frequency map)

NOAA <https://www.swpc.noaa.gov/>

<https://www.spaceweather.com/>

<https://www.solarham.com/>

<https://dx.qsl.net/propagation/>

### A Propagation Tutorial

The solar X-ray flux tracks solar activity and solar flares. Solar flux, which can vary from as low as 50 to as high as 300, influences the level of ionization in the F2 region of the ionosphere, providing a very good prediction of HF DX conditions. The higher the solar flux, the better conditions will be for the higher HF frequencies and even 6 meters. However, the levels need to be maintained for some days to allow ionization in the F2 layer to build up. A solar flux of 150 results in good HF band conditions, while levels of 200 and up can provide great conditions.

Large X-ray flares on the sun can increase the ionization of the D layer of the ionosphere (a lower layer) on the sunlit side of the Earth, greatly attenuating or blocking HF radio transmissions for up to a half hour. Solar flares often produce Coronal Mass Ejections (CMEs) which, if Earth directed, can lead to geomagnetic storms. Some large flares are also accompanied by strong radio bursts that may interfere with other radio frequencies and cause problems for satellite communication and radio navigation (GPS).

The Planetary K-index is a measure of the magnitude of geomagnetic storms and is an excellent indicator of disturbances in the Earth's magnetic field. A level of 1 or 2 represents quiet geomagnetic conditions; a reading of 3 or 4 may cause some propagation deterioration; 5 and 6 are minor to moderate geomagnetic storms; and 7 to 9 are strong, severe, and extreme storm conditions. Strong geomagnetic storms can trigger Auroral displays and cause HF radio blackouts. Higher geomagnetic activity also has the adverse effect of lowering maximum usable frequencies, much like lower solar flux does.

For best conditions, the solar flux should be above 150 for a few days with the K index below 2. When these conditions are met, some good DX is likely!

-[Compiled from information on NOAA.gov and other sources]

## Contest Calendar

### Weekly Contests

Contest	Start UTC		End	Web Site
K1USN Slow Speed Test	Monday	0000Z	0100Z	<a href="#">Rules</a>
ICWC Medium Speed Test	Monday	1300Z	1400Z	<a href="#">Rules</a>
	Monday	1900Z	2000Z	
	Tuesday	0300Z	0400Z	
CWops Test (CWT)	Wednesday	1300Z	1400Z	<a href="#">Rules</a>
	Wednesday	1900Z	2000Z	
	Thursday	0300Z	0400Z	
	Thursday	0700Z	0800Z	
Weekly RTTY Test	Friday	0145Z	0215Z	<a href="#">Rules</a>
NCCC CW Sprint (NS)	Friday	0230Z	0300Z	<a href="#">Rules</a>

Note: Start Days are in UTC, e.g. Monday at 0000 UTC is Sunday at 7:00 PM in the Central Daylight Saving Time zone, or Sunday at 6:00 PM in the Central Standard Time zone.

### Full Calendar

Contest	Start		End		Web Site
<b>CQ Worldwide DX Contest, RTTY</b>	Sep 28	0000Z	Sep 29	2400Z	<a href="#">Rules</a>
Maine QSO Party	Sep 28	1200Z	Sep 29	1200Z	<a href="#">Rules</a>
Oceania DX Contest, Phone	Oct 5	0600Z	Oct 6	0600Z	<a href="#">Rules</a>
California QSO Party	Oct 5	1600Z	Oct 6	2200Z	<a href="#">Rules</a>
Makrothen RTTY Contest	Oct 12	0000Z	Oct 13	1559Z	<a href="#">Rules</a>
Nevada QSO Party	Oct 12	0300Z	Oct 13	2100Z	<a href="#">Rules</a>
Oceania DX Contest, CW	Oct 12	0600Z	Oct 13	0600Z	<a href="#">Rules</a>
Scandinavian Activity Contest, SSB	Oct 12	1200Z	Oct 13	1200Z	<a href="#">Rules</a>
Arizona QSO Party	Oct 12	1500Z	Oct 13	0500Z	<a href="#">Rules</a>
Pennsylvania QSO Party	Oct 12	1600Z	Oct 13	0400Z	<a href="#">Rules</a>
	Oct 13	1300Z	Oct 13	2200Z	
South Dakota QSO Party	Oct 12	1800Z	Oct 13	1800Z	<a href="#">Rules</a>
10-10 Int. Fall Contest, CW	Oct 19	0001Z	Oct 20	2359Z	<a href="#">Rules</a>
New York QSO Party	Oct 19	1400Z	Oct 20	0200Z	<a href="#">Rules</a>
Stew Perry Topband Challenge	Oct 19	1500Z	Oct 20	1500Z	<a href="#">Rules</a>
Illinois QSO Party	Oct 20	1700Z	Oct 21	0100Z	<a href="#">Rules</a>
ARRL School Club Roundup	Oct 21	1300Z	Oct 25	2359Z	<a href="#">Rules</a>
<b>CQ Worldwide DX Contest, SSB</b>	Oct 26	0000Z	Oct 27	2400Z	<a href="#">Rules</a>
Ukrainian DX Contest	Nov 2	1200Z	Nov 3	1200Z	<a href="#">Rules</a>

<b>ARRL Sweepstakes Contest, CW</b>	Nov 2	2100Z	Nov 4	0300Z	<a href="#">Rules</a>
WAE DX Contest, RTTY	Nov 9	0000Z	Nov 10	2359Z	<a href="#">Rules</a>
10-10 Int. Fall Contest, Digital	Nov 9	0001Z	Nov 10	2359Z	<a href="#">Rules</a>
JIDX Phone Contest	Nov 9	0700Z	Nov 10	1300Z	<a href="#">Rules</a>
OK/OM DX Contest, CW	Nov 9	1200Z	Nov 10	1200Z	<a href="#">Rules</a>
North American SSB Sprint Contest	Nov 10	0000Z	Nov 10	0400Z	<a href="#">Rules</a>
LZ DX Contest	Nov 16	1200Z	Nov 17	1200Z	<a href="#">Rules</a>
<b>ARRL Sweepstakes Contest, SSB</b>	Nov 16	2100Z	Nov 18	0300Z	<a href="#">Rules</a>
<b>CQ Worldwide DX Contest, CW</b>	Nov 23	0000Z	Nov 24	2400Z	<a href="#">Rules</a>
ARRL 160-Meter Contest	Dec 6	2200Z	Dec 8	1600Z	<a href="#">Rules</a>
<b>ARRL 10-Meter Contest</b>	Dec 14	0000Z	Dec 15	2359Z	<a href="#">Rules</a>
OK DX RTTY Contest	Dec 21	0000Z	Dec 21	2400Z	<a href="#">Rules</a>
Croatian DX Contest	Dec 21	1400Z	Dec 22	1400Z	<a href="#">Rules</a>
ARRL Rookie Roundup, CW	Dec 22	1800Z	Dec 22	2359Z	<a href="#">Rules</a>

-[Contest data courtesy of the [WA7BNM Contest Calendar](#) ]